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## Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer

CONTACT: Mary Byrd, Community Programs Supervisor (961-8833)

SUBJECT: Memorandum of Agreement with the National Marine Sanctuary Foundation

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### RECOMMENDATION:

Authorize the Chair to execute a Memorandum of Agreement with the National Marine Sanctuary Foundation for the District to contribute funds to the 2016 Vessel Speed Reduction Program, to make it possible for the program to start in July.

### DISCUSSION:

In March, your Board was updated on plans to implement a second Vessel Speed Reduction (VSR) Program with our partners.

The first VSR Program in 2014 demonstrated the willingness of shipping companies to participate in a voluntary, non-regulatory, non-port program, and the feasibility of implementing such a program in the Santa Barbara Channel. Subsequent to that successful program, the District has participated in a Marine Shipping Working Group which was convened by the Channel Islands National Marine Sanctuary Advisory Council. The Working Group brought together a wide range of stakeholders representing the shipping industry, Coast Guard, US Navy, National Marine Fisheries Service, National Park Service, whale researchers, and Natural Resources Defense Council, among others. The process identified a range of potential management proposals to address the concerns of the stakeholders. The Working Group unanimously supported an additional VSR Program to build on the 2014 Trial. The 2016 VSR Program will explore additional on-board measures to protect whales, assess the effectiveness of different incentive amounts, and support additional assessment of emission impacts associated with the VSR Program. The ultimate goal of this series of programs is to identify a sustainable method to implement ongoing VSR offshore Santa Barbara County.

For the 2016 VSR Program, the National Marine Sanctuary Foundation (NMSF), a nonprofit organization that supports the national marine sanctuaries, will serve as the fiscal agent to manage grant funds and incentive payments to participating shipping lines, as it did for the 2014 VSR Program. The attached Memorandum of Agreement (MOA) is based on the previously executed agreement for the 2014 Program, with revisions as follows.

- An added provision in the MOA specifies how unspent funds will be returned to the District. As approved in the FY 2015-2016 budget, the District is contributing \$50,000 to the Program.
- The VSR region includes an area to the south of the Channel Islands as shown in the revised map attached to the MOA.
- Incentive payments may range from \$1,000 to \$4,000.

In addition, we are working to achieve the most accurate calculations of emissions reductions as we go forward with a 2016 Program. When we reached out to our shipping industry partners to plan the 2016 Program they expressed that the calculations of nitrogen oxides (NO<sub>x</sub>) emissions reductions for the 2014 VSR Trial might be on the high side, as they were based on the state's emission factors and average for container ships. They felt the calculations might not have accounted for a potentially cleaner mix of ship engines transiting the Channel. In response to this input, we contracted with Starcrest Consulting Group, LLC (Starcrest), a firm that specializes in shipping emissions inventories worldwide, to achieve more accurate emission reduction numbers for the 2014 VSR Trial.

In April we received the calculations from Starcrest that the 2014 VSR Trial achieved approximately 12.4 tons of NO<sub>x</sub> emission reductions. This compares with the 16.54 (or 17) tons reflected in our report on the 2014 VSR Trial. We have recently corrected that report. The Starcrest calculations, done using methodology based on the Port of Los Angeles and Port of Long Beach emissions inventory methods, reflect the following improvements over the previous calculations:

- Emissions were calculated for main engine, auxiliary engine, and auxiliary boiler emissions sources separately;
- The vessel specific main engine rating (kW) was applied, sourced from IHS Marine Data (formerly Lloyds);
- Vessel-specific engine load (kW) data was used for each auxiliary engine or auxiliary boiler, when available;
- If Vessel Boarding Program (VBP) data were not available for a specific vessel auxiliary engine or auxiliary boiler load, default values were applied by vessel type and size class;
- Emission factors were applied on a vessel-specific basis depending on main engine and auxiliary engine tier; and,
- Low load adjustment factors were applied to main engines when the load is between certain thresholds below 20%.

The District will continue working with Starcrest on the calculations of emissions reductions for the 2016 VSR Program, and will incorporate their input in designing the Program. Working with our partners, we will identify ways to achieve maximum emission-reduction and whale-protection benefits. An executed agreement with the National Marine Sanctuary Foundation will make it possible for the District to work with our partners on a 2016 VSR Program to start in July.

**ATTACHMENT:**

Memorandum of Agreement